

SEQUENCE LISTING

<110> Gentz, Reiner

<120> Tumor Necrosis Factor Receptors 6 Alpha and 6 Beta

<130> PF454P1

<140> Unassigned

<141> 2000-03-03

<150> 09/066,352

<151> 1998-01-13

<150> 60/121,774

<151> 1999-03-04

<150> 60/124,092

<151> 1999-03-12

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<151> 1999-04-27

<150> 60/131,964

<151> 1999-04-30

<150> 60/146,371

<151> 1999-08-02

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<151> 1999-12-01

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<170> PatentIn Ver. 2.1

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<222> (25)..(924)

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gct gta cgc gga gtg gca gaa aca ccc acc tac ccc tgg cgg gac gca 147
Ala Val Arg Gly Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala
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Val	Gln	Arg	Pro	Cys	Arg	Arg	Asp	Ser	Pro	Thr	Thr	Cys	Gly	Pro	Cys	
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cca	ccg	cgc	cac	tac	acg	cag	ttc	tgg	aac	tac	ctg	gag	cgc	tgc	cgc	291
Pro	Pro	Arg	His	Tyr	Thr	Gln	Phe	Trp	Asn	Tyr	Leu	Glu	Arg	Cys	Arg	
			75				80						85			
tac	tgc	aac	gtc	ctc	tgc	ggg	gag	cgt	gag	gag	gag	gca	cgg	gct	tgc	339
Tyr	Cys	Asn	Val	Leu	Cys	Gly	Glu	Arg	Glu	Glu	Glu	Ala	Arg	Ala	Cys	
			90				95						100			105
cac	gcc	acc	cac	aac	cgt	gcc	tgc	cgc	tgc	cgc	acc	ggc	ttc	ttc	gcg	387
His	Ala	Thr	His	Asn	Arg	Ala	Cys	Arg	Cys	Arg	Thr	Gly	Phe	Phe	Ala	
						110				115			120			
cac	gct	ggt	ttc	tgc	ttg	gag	cac	gca	tgc	tgt	cca	cct	ggt	gcc	ggc	435
His	Ala	Gly	Phe	Cys	Leu	Glu	His	Ala	Ser	Cys	Pro	Pro	Gly	Ala	Gly	
						125				130			135			
gtg	att	gcc	ccg	ggc	acc	ccc	agc	cag	aac	acg	cag	tgc	cag	ccg	tgc	483
Val	Ile	Ala	Pro	Gly	Thr	Pro	Ser	Gln	Asn	Thr	Gln	Cys	Gln	Pro	Cys	
			140			145						150				
ccc	cca	ggc	acc	ttc	tca	gcc	agc	agc	tcc	agc	tca	gag	cag	tgc	cag	531
Pro	Pro	Gly	Thr	Phe	Ser	Ala	Ser	Ser	Ser	Ser	Ser	Glu	Gln	Cys	Gln	
			155			160						165				
ccc	cac	cgc	aac	tgc	acg	gcc	ctg	ggc	ctg	gcc	ctc	aat	gtg	cca	ggc	579
Pro	His	Arg	Asn	Cys	Thr	Ala	Leu	Gly	Leu	Ala	Leu	Asn	Val	Pro	Gly	
			170			175						180			185	
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Ser	Ser	Ser	His	Asp	Thr	Leu	Cys	Thr	Ser	Cys	Thr	Gly	Phe	Pro	Leu	
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Ser	Thr	Arg	Val	Pro	Gly	Ala	Glu	Glu	Cys	Glu	Arg	Ala	Val	Ile	Asp	
			205						210						215	
ttt	gtg	gct	ttc	cag	gac	atc	tcc	atc	aag	agg	ctg	cag	cgg	ctg	ctg	723
Phe	Val	Ala	Phe	Gln	Asp	Ile	Ser	Ile	Lys	Arg	Leu	Gln	Arg	Leu	Leu	
			220			225						230				
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Gln	Ala	Leu	Glu	Ala	Pro	Glu	Gly	Trp	Gly	Pro	Thr	Pro	Arg	Ala	Gly	
			235			240						245				
cgc	gcg	gcc	ttg	cag	ctg	aag	ctg	cgt	cgg	cgg	ctc	acg	gag	ctc	ctg	819
Arg	Ala	Ala	Leu	Gln	Leu	Lys	Leu	Arg	Arg	Arg	Leu	Thr	Glu	Leu	Leu	
			250			255						260			265	
ggg	gcg	cag	gac	ggg	gcg	ctg	ctg	gtg	cgg	ctg	ctg	cag	gcg	ctg	cgc	867
Gly	Ala	Gln	Asp	Gly	Ala	Leu	Leu	Val	Arg	Leu	Leu	Gln	Ala	Leu	Arg	
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gtg gcc agg atg ccc ggg ctg gag cgg agc gtc cgt gag cgc ttc ctc 915
 Val Ala Arg Met Pro Gly Leu Glu Arg Ser Val Arg Glu Arg Phe Leu
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cct gtg cac tgatcctggc cccctcttat ttattctaca tccttggcac 964
 Pro Val His
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 <212> PRT
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 35 40 45
 Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
 50 55 60
 Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
 65 70 75 80
 Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
 85 90 95
 Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
 100 105 110
 Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
 115 120 125
 His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Thr Pro
 130 135 140
 Ser Gln Asn Thr Gln Cys Gln Pro Cys Pro Pro Gly Thr Phe Ser Ala
 145 150 155 160
 Ser Ser Ser Ser Ser Glu Gln Cys Gln Pro His Arg Asn Cys Thr Ala
 165 170 175
 Leu Gly Leu Ala Leu Asn Val Pro Gly Ser Ser Ser His Asp Thr Leu
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 Cys Thr Ser Cys Thr Gly Phe Pro Leu Ser Thr Arg Val Pro Gly Ala
 195 200 205
 Glu Glu Cys Glu Arg Ala Val Ile Asp Phe Val Ala Phe Gln Asp Ile

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Ser Ile Lys Arg Leu Gln Arg Leu Leu Gln Ala Leu Glu Ala Pro Glu		
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Gly Trp Gly Pro Thr Pro Arg Ala Gly Arg Ala Ala Leu Gln Leu Lys		
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Leu Arg Arg Arg Leu Thr Glu Leu Leu Gly Ala Gln Asp Gly Ala Leu		
	260	265 270
Leu Val Arg Leu Leu Gln Ala Leu Arg Val Ala Arg Met Pro Gly Leu		
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 Met Arg Ala Leu Glu Gly Pro Gly Leu Ser Leu Leu Cys
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 ctg gtg ttg gcg ctg cct gcc ctg ctg ccg gtg ccg gct gta cgc gga 159
 Leu Val Leu Ala Leu Pro Ala Leu Leu Pro Val Pro Ala Val Arg Gly
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 Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg Asp Ala Glu Thr Gly Glu
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 Arg Leu Val Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro
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 Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His
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 Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val
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 ctc tgc ggg gag cgt gag gag gag gca cgg gct tgc cac gcc acc cac 399
 Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His
 95 100 105

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tgc ttg gag cac gca tgc tgt cca cct ggt gcc ggc gtg att gcc ccg 495
Cys Leu Glu His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro
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ggt gag agc tgg gcg agg gga ggg gcc ccc agg agt ggt ggc cgg agg 543
Gly Glu Ser Trp Ala Arg Gly Gly Ala Pro Arg Ser Gly Gly Arg Arg
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tgt ggc agg ggt cag gtt gct ggt ccc agc ctt gca ccc tgagctagga 592
Cys Gly Arg Gly Gln Val Ala Gly Pro Ser Leu Ala Pro
                      160                      165                      170

caccagttcc cctgaccctg ttcttccctc ctggctgcag gcacccccag ccagaacacg 652

cagtgccagc cgtgcccccc aggcaccttc tcagccagca gctccagctc agagcagtgc 712

cagccccacc gcaactgcac ggccctgggc ctggccctca atgtgccagg ctcttccctcc 772

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ccagaggcct gagggggcgag cacactgcag gccaggccca cttgtgccct cactcctgcc 892

cctgcacgtg catctagcct gaggcattgcc agctggctct gggaaggggc cacagtggat 952

ttgaggggtc aggggtccct ccactagatc cccaccaagt ctgccctctc aggggtggct 1012

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caatctccta actgcccagag gggaaggtgg ctggctcctc tgacacgggg aaaccgaggc 1132

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caagcccttg cctgggcccc cttgcctctt gcagccaagg tccgagtggc cgctcctgcc 1372

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 35 40 45
 Cys Ala Gln Cys Pro Pro Gly Thr Phe Val Gln Arg Pro Cys Arg Arg
 50 55 60
 Asp Ser Pro Thr Thr Cys Gly Pro Cys Pro Pro Arg His Tyr Thr Gln
 65 70 75 80
 Phe Trp Asn Tyr Leu Glu Arg Cys Arg Tyr Cys Asn Val Leu Cys Gly
 85 90 95
 Glu Arg Glu Glu Glu Ala Arg Ala Cys His Ala Thr His Asn Arg Ala
 100 105 110
 Cys Arg Cys Arg Thr Gly Phe Phe Ala His Ala Gly Phe Cys Leu Glu
 115 120 125
 His Ala Ser Cys Pro Pro Gly Ala Gly Val Ile Ala Pro Gly Glu Ser
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 Gly Gln Val Ala Gly Pro Ser Leu Ala Pro
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 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125
 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140
 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160
 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175
 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190
 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205
 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220
 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240
 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
 245 250 255
 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
 260 265 270
 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
 275 280 285
 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
 290 295 300
 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
 305 310 315 320
 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
 325 330 335
 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
 340 345 350
 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
 355 360 365
 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
 370 375 380
 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
 385 390 395 400
 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
 405 410 415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
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Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
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Pro Ala Pro Ser Leu Leu Arg
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<213> Homo sapiens

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 35 40 45

Thr Ala Gln Met Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys
 50 55 60

Val Phe Cys Thr Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp
 65 70 75 80

Ser Thr Tyr Thr Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys
 85 90 95

Gly Ser Arg Cys Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg
 100 105 110

Glu Gln Asn Arg Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu
 115 120 125

Ser Lys Gln Glu Gly Cys Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg
 130 135 140

Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp Val Val
 145 150 155 160

Cys Lys Pro Cys Ala Pro Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr
 165 170 175

Asp Ile Cys Arg Pro His Gln Ile Cys Asn Val Val Ala Ile Pro Gly
 180 185 190

Asn Ala Ser Arg Asp Ala Val Cys Thr Ser Thr Ser Pro Thr Arg Ser
 195 200 205

Met Ala Pro Gly Ala Val His Leu Pro Gln Pro Val Ser Thr Arg Ser
 210 215 220

Gln His Thr Gln Pro Thr Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser
 225 230 235 240
 Phe Leu Leu Pro Met Gly Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly
 245 250 255
 Asp Phe Ala Leu Pro Val Gly Leu Ile Val Gly Val Thr Ala Leu Gly
 260 265 270
 Leu Leu Ile Ile Gly Val Val Asn Cys Val Ile Met Thr Gln Val Lys
 275 280 285
 Lys Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro
 290 295 300
 Ala Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu
 305 310 315 320
 Ile Thr Ala Pro Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser
 325 330 335
 Ala Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly
 340 345 350
 Val Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser
 355 360 365
 Asp Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile
 370 375 380
 Val Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln
 385 390 395 400
 Ala Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro
 405 410 415
 Lys Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser
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				85					90					95	
Ala	Pro	Cys	Val	Glu	Ala	Asp	Asp	Ala	Val	Cys	Arg	Cys	Ala	Tyr	Gly
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Val	Cys	Glu	Glu	Cys	Pro	Asp	Gly	Thr	Tyr	Ser	Asp	Glu	Ala	Asn	His
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Val	Asp	Pro	Cys	Leu	Pro	Cys	Thr	Val	Cys	Glu	Asp	Thr	Glu	Arg	Gln
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Leu	Arg	Glu	Cys	Thr	Arg	Trp	Ala	Asp	Ala	Glu	Cys	Glu	Glu	Ile	Pro
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Gly	Arg	Trp	Ile	Thr	Arg	Ser	Thr	Pro	Pro	Glu	Gly	Ser	Asp	Ser	Thr
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Ala	Pro	Ser	Thr	Gln	Glu	Pro	Glu	Ala	Pro	Pro	Glu	Gln	Asp	Leu	Ile
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Ala	Ser	Thr	Val	Ala	Gly	Val	Val	Thr	Thr	Val	Met	Gly	Ser	Ser	Gln
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				245					250					255	
Ser	Ile	Leu	Ala	Ala	Val	Val	Val	Gly	Leu	Val	Ala	Tyr	Ile	Ala	Phe
			260					265					270		
Lys	Arg	Trp	Asn	Ser	Cys	Lys	Gln	Asn	Lys	Gln	Gly	Ala	Asn	Ser	Arg
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Pro	Val	Asn	Gln	Thr	Pro	Pro	Pro	Glu	Gly	Glu	Lys	Leu	His	Ser	Asp
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Ser	Gly	Ile	Ser	Val	Asp	Ser	Gln	Ser	Leu	His	Asp	Gln	Gln	Pro	His
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Thr	Gln	Thr	Ala	Ser	Gly	Gln	Ala	Leu	Lys	Gly	Asp	Gly	Gly	Leu	Tyr
				325					330					335	
Ser	Ser	Leu	Pro	Pro	Ala	Lys	Arg	Glu	Val	Glu	Lys	Leu	Leu	Asn	
			340					345				350			

Gly Ser Ala Gly Asp Thr Trp Arg His Leu Ala Gly Glu Leu Gly Tyr
355 360 365

Gln Pro Glu His Ile Asp Ser Phe Thr His Glu Ala Cys Pro Val Arg
370 375 380

Ala Leu Leu Ala Ser Trp Ala Thr Gln Asp Ser Ala Thr Leu Asp Ala
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Leu Leu Ala Ala Leu Arg Arg Ile Gln Arg Ala Asp Leu Val Glu Ser
405 410 415

Leu Cys Ser Glu Ser Thr Ala Thr Ser Pro Val
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<210> 8

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<212> PRT

<213> Homo sapiens

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Glu Tyr Tyr Glu Pro Met His Asp Val Cys Cys Ser Arg Cys Pro Pro
50 55 60

Gly Glu Phe Val Phe Ala Val Cys Ser Arg Ser Gln Asp Thr Val Cys
65 70 75 80

Lys Thr Cys Pro His Asn Ser Tyr Asn Glu His Trp Asn His Leu Ser
85 90 95

Thr Cys Gln Leu Cys Arg Pro Cys Asp Ile Val Leu Gly Phe Glu Glu
100 105 110

Val Ala Pro Cys Thr Ser Asp Arg Lys Ala Glu Cys Arg Cys Gln Pro
115 120 125

Gly Met Ser Cys Val Tyr Leu Asp Asn Glu Cys Val His Cys Glu Glu
130 135 140

Glu Arg Leu Val Leu Cys Gln Pro Gly Thr Glu Ala Glu Val Thr Asp
145 150 155 160

Glu Ile Met Asp Thr Asp Val Asn Cys Val Pro Cys Lys Pro Gly His
165 170 175

Phe Gln Asn Thr Ser Ser Pro Arg Ala Arg Cys Gln Pro His Thr Arg
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Cys Glu Ile Gln Gly Leu Val Glu Ala Ala Pro Gly Thr Ser Tyr Ser

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225					230					235					240
Ala	Cys	Ala	Trp	Met	Arg	His	Pro	Ser	Leu	Cys	Arg	Lys	Leu	Gly	Thr
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Leu	Leu	Lys	Arg	His	Pro	Glu	Gly	Glu	Glu	Ser	Pro	Pro	Cys	Pro	Ala
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Pro	Arg	Ala	Asp	Pro	His	Phe	Pro	Asp	Leu	Ala	Glu	Pro	Leu	Leu	Pro
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Met	Ser	Gly	Asp	Leu	Ser	Pro	Ser	Pro	Ala	Gly	Pro	Pro	Thr	Ala	Pro
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Ser	Leu	Glu	Glu	Val	Val	Leu	Gln	Gln	Gln	Ser	Pro	Leu	Val	Gln	Ala
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Arg	Glu	Leu	Glu	Ala	Glu	Pro	Gly	Glu	His	Gly	Gln	Val	Ala	His	Gly
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Ala	Asn	Gly	Ile	His	Val	Thr	Gly	Gly	Ser	Val	Thr	Val	Thr	Gly	Asn
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		355					360					365			
Asp	Pro	Pro	Ala	Pro	Pro	Glu	Pro	Pro	Tyr	Pro	Thr	Pro	Glu	Glu	Gly
	370					375					380				
Ala	Pro	Gly	Pro	Ser	Glu	Leu	Ser	Thr	Pro	Tyr	Gln	Glu	Asp	Gly	Lys
385					390					395					400
Ala	Trp	His	Leu	Ala	Glu	Thr	Glu	Thr	Leu	Gly	Cys	Gln	Asp	Leu	
			405						410					415	

<210> 9

<211> 335

<212> PRT

<213> Homo sapiens

<400> 9

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Arg	Leu	Ser	Ser	Lys	Ser	Val	Asn	Ala	Gln	Val	Thr	Asp	Ile	Asn	Ser
			20					25						30	

Lys	Gly	Leu	Glu	Leu	Arg	Lys	Thr	Val	Thr	Thr	Val	Glu	Thr	Gln	Asn
		35					40					45			

Leu	Glu	Gly	Leu	His	His	Asp	Gly	Gln	Phe	Cys	His	Lys	Pro	Cys	Pro
	50					55					60				

Pro Gly Glu Arg Lys Ala Arg Asp Cys Thr Val Asn Gly Asp Glu Pro
 65 70 75 80
 Asp Cys Val Pro Cys Gln Glu Gly Lys Glu Tyr Thr Asp Lys Ala His
 85 90 95
 Phe Ser Ser Lys Cys Arg Arg Cys Arg Leu Cys Asp Glu Gly His Gly
 100 105 110
 Leu Glu Val Glu Ile Asn Cys Thr Arg Thr Gln Asn Thr Lys Cys Arg
 115 120 125
 Cys Lys Pro Asn Phe Phe Cys Asn Ser Thr Val Cys Glu His Cys Asp
 130 135 140
 Pro Cys Thr Lys Cys Glu His Gly Ile Ile Lys Glu Cys Thr Leu Thr
 145 150 155 160
 Ser Asn Thr Lys Cys Lys Glu Glu Gly Ser Arg Ser Asn Leu Gly Trp
 165 170 175
 Leu Cys Leu Leu Leu Leu Pro Ile Pro Leu Ile Val Trp Val Lys Arg
 180 185 190
 Lys Glu Val Gln Lys Thr Cys Arg Lys His Arg Lys Glu Asn Gln Gly
 195 200 205
 Ser His Glu Ser Pro Thr Leu Asn Pro Glu Thr Val Ala Ile Asn Leu
 210 215 220
 Ser Asp Val Asp Leu Ser Lys Tyr Ile Thr Thr Ile Ala Gly Val Met
 225 230 235 240
 Thr Leu Ser Gln Val Lys Gly Phe Val Arg Lys Asn Gly Val Asn Glu
 245 250 255
 Ala Lys Ile Asp Glu Ile Lys Asn Asp Asn Val Gln Asp Thr Ala Glu
 260 265 270
 Gln Lys Val Gln Leu Leu Arg Asn Trp His Gln Leu His Gly Lys Lys
 275 280 285
 Glu Ala Tyr Asp Thr Leu Ile Lys Asp Leu Lys Lys Ala Asn Leu Cys
 290 295 300
 Thr Leu Ala Glu Lys Ile Gln Thr Ile Ile Leu Lys Asp Ile Thr Ser
 305 310 315 320
 Asp Ser Glu Asn Ser Asn Phe Arg Asn Glu Ile Gln Ser Leu Val
 325 330 335

<210> 10

<211> 260

<212> PRT

<213> Homo sapiens

<400> 10

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 Gly Leu Ser Ala Thr Pro Ala Pro Lys Ser Cys Pro Glu Arg His Tyr
 20 25 30
 Trp Ala Gln Gly Lys Leu Cys Cys Gln Met Cys Glu Pro Gly Thr Phe
 35 40 45
 Leu Val Lys Asp Cys Asp Gln His Arg Lys Ala Ala Gln Cys Asp Pro
 50 55 60
 Cys Ile Pro Gly Val Ser Phe Ser Pro Asp His His Thr Arg Pro His
 65 70 75 80
 Cys Glu Ser Cys Arg His Cys Asn Ser Gly Leu Leu Val Arg Asn Cys
 85 90 95
 Thr Ile Thr Ala Asn Ala Glu Cys Ala Cys Arg Asn Gly Trp Gln Cys
 100 105 110
 Arg Asp Lys Glu Cys Thr Glu Cys Asp Pro Leu Pro Asn Pro Ser Leu
 115 120 125
 Thr Ala Arg Ser Ser Gln Ala Leu Ser Pro His Pro Gln Pro Thr His
 130 135 140
 Leu Pro Tyr Val Ser Glu Met Leu Glu Ala Arg Thr Ala Gly His Met
 145 150 155 160
 Gln Thr Leu Ala Asp Phe Arg Gln Leu Pro Ala Arg Thr Leu Ser Thr
 165 170 175
 His Trp Pro Pro Gln Arg Ser Leu Cys Ser Ser Asp Phe Ile Arg Ile
 180 185 190
 Leu Val Ile Phe Ser Gly Met Phe Leu Val Phe Thr Leu Ala Gly Ala
 195 200 205
 Leu Phe Leu His Gln Arg Arg Lys Tyr Arg Ser Asn Lys Gly Glu Ser
 210 215 220
 Pro Val Glu Pro Ala Glu Pro Cys Arg Tyr Ser Cys Pro Arg Glu Glu
 225 230 235 240
 Glu Gly Ser Thr Ile Pro Ile Gln Glu Asp Tyr Arg Lys Pro Glu Pro
 245 250 255
 Ala Cys Ser Pro
 260

<210> 11

<211> 595

<212> PRT

<213> Homo sapiens

<400> 11

Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu

1	5	10	15
Arg Ala Phe Pro	Gln Asp Arg Pro	Phe Glu Asp Thr	Cys His Gly Asn
	20	25	30
Pro Ser His Tyr	Tyr Asp Lys Ala	Val Arg Arg Cys	Cys Tyr Arg Cys
	35	40	45
Pro Met Gly Leu	Phe Pro Thr	Gln Gln Cys Pro	Gln Arg Pro Thr Asp
	50	55	60
Cys Arg Lys Gln	Cys Glu Pro Asp	Tyr Tyr Leu Asp	Glu Ala Asp Arg
	65	70	75
Cys Thr Ala Cys	Val Thr Cys Ser	Arg Asp Asp Leu	Val Glu Lys Thr
	85	90	95
Pro Cys Ala Trp	Asn Ser Ser Arg	Val Cys Glu Cys	Arg Pro Gly Met
	100	105	110
Phe Cys Ser Thr	Ser Ala Val Asn	Ser Cys Ala Arg	Cys Phe Phe His
	115	120	125
Ser Val Cys Pro	Ala Gly Met Ile	Val Lys Phe Pro	Gly Thr Ala Gln
	130	135	140
Lys Asn Thr Val	Cys Glu Pro Ala	Ser Pro Gly Val	Ser Pro Ala Cys
	145	150	155
Ala Ser Pro Glu	Asn Cys Lys Glu	Pro Ser Ser Gly	Thr Ile Pro Gln
	165	170	175
Ala Lys Pro Thr	Pro Val Ser Pro	Ala Thr Ser Ser	Ala Ser Thr Met
	180	185	190
Pro Val Arg Gly	Gly Thr Arg Leu	Ala Gln Glu Ala	Ala Ser Lys Leu
	195	200	205
Thr Arg Ala Pro	Asp Ser Pro Ser	Ser Val Gly Arg	Pro Ser Ser Asp
	210	215	220
Pro Gly Leu Ser	Pro Thr Gln Pro	Cys Pro Glu Gly	Ser Gly Asp Cys
	225	230	235
Arg Lys Gln Cys	Glu Pro Asp Tyr	Tyr Leu Asp Glu	Ala Gly Arg Cys
	245	250	255
Thr Ala Cys Val	Ser Cys Ser Arg	Asp Asp Leu Val	Glu Lys Thr Pro
	260	265	270
Cys Ala Trp Asn	Ser Ser Arg Thr	Cys Glu Cys Arg	Pro Gly Met Ile
	275	280	285
Cys Ala Thr Ser	Ala Thr Asn Ser	Cys Ala Arg Cys	Val Pro Tyr Pro
	290	295	300
Ile Cys Ala Ala	Glu Thr Val Thr	Lys Pro Gln Asp	Met Ala Glu Lys
	305	310	315
			320

Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn
 325 330 335
 Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln
 340 345 350
 Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr
 355 360 365
 Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala
 370 375 380
 Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Val Gly
 385 390 395 400
 Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile
 405 410 415
 Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys
 420 425 430
 Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg
 435 440 445
 Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met
 450 455 460
 Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu
 465 470 475 480
 Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser
 485 490 495
 Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn
 500 505 510
 Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly
 515 520 525
 Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala
 530 535 540
 Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr
 545 550 555 560
 Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
 565 570 575
 Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
 580 585 590
 Ser Gly Lys
 595

<210> 12
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 12

Met	Val	Arg	Leu	Pro	Leu	Gln	Cys	Val	Leu	Trp	Gly	Cys	Leu	Leu	Thr
1				5					10					15	
Ala	Val	His	Pro	Glu	Pro	Pro	Thr	Ala	Cys	Arg	Glu	Lys	Gln	Tyr	Leu
			20					25					30		
Ile	Asn	Ser	Gln	Cys	Cys	Ser	Leu	Cys	Gln	Pro	Gly	Gln	Lys	Leu	Val
		35					40					45			
Ser	Asp	Cys	Thr	Glu	Phe	Thr	Glu	Thr	Glu	Cys	Leu	Pro	Cys	Gly	Glu
	50					55					60				
Ser	Glu	Phe	Leu	Asp	Thr	Trp	Asn	Arg	Glu	Thr	His	Cys	His	Gln	His
	65				70					75					80
Lys	Tyr	Cys	Asp	Pro	Asn	Leu	Gly	Leu	Arg	Val	Gln	Gln	Lys	Gly	Thr
				85					90					95	
Ser	Glu	Thr	Asp	Thr	Ile	Cys	Thr	Cys	Glu	Glu	Gly	Trp	His	Cys	Thr
			100					105					110		
Ser	Glu	Ala	Cys	Glu	Ser	Cys	Val	Leu	His	Arg	Ser	Cys	Ser	Pro	Gly
		115					120					125			
Phe	Gly	Val	Lys	Gln	Ile	Ala	Thr	Gly	Val	Ser	Asp	Thr	Ile	Cys	Glu
	130					135					140				
Pro	Cys	Pro	Val	Gly	Phe	Phe	Ser	Asn	Val	Ser	Ser	Ala	Phe	Glu	Lys
	145				150					155					160
Cys	His	Pro	Trp	Thr	Ser	Cys	Glu	Thr	Lys	Asp	Leu	Val	Val	Gln	Gln
				165					170					175	
Ala	Gly	Thr	Asn	Lys	Thr	Asp	Val	Val	Cys	Gly	Pro	Gln	Asp	Arg	Leu
			180					185					190		
Arg	Ala	Leu	Val	Val	Ile	Pro	Ile	Ile	Phe	Gly	Ile	Leu	Phe	Ala	Ile
		195					200					205			
Leu	Leu	Val	Leu	Val	Phe	Ile	Lys	Lys	Val	Ala	Lys	Lys	Pro	Thr	Asn
	210				215						220				
Lys	Ala	Pro	His	Pro	Lys	Gln	Glu	Pro	Gln	Glu	Ile	Asn	Phe	Pro	Asp
	225				230					235					240
Asp	Leu	Pro	Gly	Ser	Asn	Thr	Ala	Ala	Pro	Val	Gln	Glu	Thr	Leu	His
				245					250					255	
Gly	Cys	Gln	Pro	Val	Thr	Gln	Glu	Asp	Gly	Lys	Glu	Ser	Arg	Ile	Ser
			260					265					270		
Val	Gln	Glu	Arg	Gln											
		275													

<210> 13

<211> 255

<212> PRT

<213> Homo sapiens

<400> 13

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Met Gly Asn Ser Cys Tyr Asn Ile Val Ala Thr Leu Leu Leu Val Leu
  1           5           10           15

Asn Phe Glu Arg Thr Arg Ser Leu Gln Asp Pro Cys Ser Asn Cys Pro
      20           25           30

Ala Gly Thr Phe Cys Asp Asn Asn Arg Asn Gln Ile Cys Ser Pro Cys
      35           40           45

Pro Pro Asn Ser Phe Ser Ser Ala Gly Gly Gln Arg Thr Cys Asp Ile
      50           55           60

Cys Arg Gln Cys Lys Gly Val Phe Arg Thr Arg Lys Glu Cys Ser Ser
      65           70           75           80

Thr Ser Asn Ala Glu Cys Asp Cys Thr Pro Gly Phe His Cys Leu Gly
      85           90           95

Ala Gly Cys Ser Met Cys Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu
      100          105          110

Thr Lys Lys Gly Cys Lys Asp Cys Cys Phe Gly Thr Phe Asn Asp Gln
      115          120          125

Lys Arg Gly Ile Cys Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Lys
      130          135          140

Ser Val Leu Val Asn Gly Thr Lys Glu Arg Asp Val Val Cys Gly Pro
      145          150          155          160

Ser Pro Ala Asp Leu Ser Pro Gly Ala Ser Ser Val Thr Pro Pro Ala
      165          170          175

Pro Ala Arg Glu Pro Gly His Ser Pro Gln Ile Ile Ser Phe Phe Leu
      180          185          190

Ala Leu Thr Ser Thr Ala Leu Leu Phe Leu Leu Phe Phe Leu Thr Leu
      195          200          205

Arg Phe Ser Val Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
      210          215          220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
      225          230          235          240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
      245          250          255

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<210> 14

<211> 277

<212> PRT

<213> Homo sapiens

<400> 14

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<210> 15
<211> 349
<212> PRT
<213> Homo sapiens
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<400> 15

Met	Lys	Ser	Val	Leu	Tyr	Leu	Tyr	Ile	Leu	Phe	Leu	Ser	Cys	Ile	Ile
1				5				10						15	
Ile	Asn	Gly	Arg	Asp	Ala	Ala	Pro	Tyr	Thr	Pro	Pro	Asn	Gly	Lys	Cys
			20					25					30		
Lys	Asp	Thr	Glu	Tyr	Lys	Arg	His	Asn	Leu	Cys	Cys	Leu	Ser	Cys	Pro
		35					40					45			
Pro	Gly	Thr	Tyr	Ala	Ser	Arg	Leu	Cys	Asp	Ser	Lys	Thr	Asn	Thr	Gln
	50					55					60				
Cys	Thr	Pro	Cys	Gly	Ser	Gly	Thr	Phe	Thr	Ser	Arg	Asn	Asn	His	Leu
65					70					75					80
Pro	Ala	Cys	Leu	Ser	Cys	Asn	Gly	Arg	Cys	Asn	Ser	Asn	Gln	Val	Glu
				85					90					95	
Thr	Arg	Ser	Cys	Asn	Thr	Thr	His	Asn	Arg	Ile	Cys	Glu	Cys	Ser	Pro
			100					105					110		
Gly	Tyr	Tyr	Cys	Leu	Leu	Lys	Gly	Ser	Ser	Gly	Cys	Lys	Ala	Cys	Val
		115					120					125			
Ser	Gln	Thr	Lys	Cys	Gly	Ile	Gly	Tyr	Gly	Val	Ser	Gly	His	Thr	Ser
	130					135					140				
Val	Gly	Asp	Val	Ile	Cys	Ser	Pro	Cys	Gly	Phe	Gly	Thr	Tyr	Ser	His
145					150					155					160
Thr	Val	Ser	Ser	Ala	Asp	Lys	Cys	Glu	Pro	Val	Pro	Asn	Asn	Thr	Phe
				165					170					175	
Asn	Tyr	Ile	Asp	Val	Glu	Ile	Thr	Leu	Tyr	Pro	Val	Asn	Asp	Thr	Ser
			180					185					190		
Cys	Thr	Arg	Thr	Thr	Thr	Thr	Gly	Leu	Ser	Glu	Ser	Ile	Leu	Thr	Ser
		195					200					205			
Glu	Leu	Thr	Ile	Thr	Met	Asn	His	Thr	Asp	Cys	Asn	Pro	Val	Phe	Arg
	210					215					220				
Glu	Glu	Tyr	Phe	Ser	Val	Leu	Asn	Lys	Val	Ala	Thr	Ser	Gly	Phe	Phe
225					230					235					240
Thr	Gly	Glu	Asn	Arg	Tyr	Gln	Asn	Ile	Ser	Lys	Val	Cys	Thr	Leu	Asn
			245						250					255	
Phe	Glu	Ile	Lys	Cys	Asn	Asn	Lys	Gly	Ser	Ser	Phe	Lys	Gln	Leu	Thr
			260					265					270		
Lys	Ala	Lys	Asn	Asp	Asp	Gly	Met	Met	Ser	His	Ser	Glu	Thr	Val	Thr
		275					280					285			
Leu	Ala	Gly	Asp	Cys	Leu	Ser	Ser	Val	Asp	Ile	Tyr	Ile	Leu	Tyr	Ser
	290					295					300				

Asn Thr Asn Ala Gln Asp Tyr Glu Thr Asp Thr Ile Ser Tyr Arg Val
305 310 315 320

Gly Asn Val Leu Asp Asp Asp Ser His Met Pro Gly Ser Cys Asn Ile
325 330 335

His Lys Pro Ile Thr Asn Ser Lys Pro Thr Arg Phe Leu
340 345

<210> 16

<211> 355

<212> PRT

<213> Homo sapiens

<400> 16

Met Lys Ser Tyr Ile Leu Leu Leu Leu Leu Ser Cys Ile Ile Ile Ile
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Asn Ser Asp Ile Thr Pro His Glu Pro Ser Asn Gly Lys Cys Lys Asp
20 25 30

Asn Glu Tyr Lys Arg His His Leu Cys Cys Leu Ser Cys Pro Pro Gly
35 40 45

Thr Tyr Ala Ser Arg Leu Cys Asp Ser Lys Thr Asn Thr Asn Thr Gln
50 55 60

Cys Thr Pro Cys Ala Ser Asp Thr Phe Thr Ser Arg Asn Asn His Leu
65 70 75 80

Pro Ala Cys Leu Ser Cys Asn Gly Arg Cys Asp Ser Asn Gln Val Glu
85 90 95

Thr Arg Ser Cys Asn Thr Thr His Asn Arg Ile Cys Asp Cys Ala Pro
100 105 110

Gly Tyr Tyr Cys Phe Leu Lys Gly Ser Ser Gly Cys Lys Ala Cys Val
115 120 125

Ser Gln Thr Lys Cys Gly Ile Gly Tyr Gly Val Ser Gly His Thr Pro
130 135 140

Thr Gly Asp Val Val Cys Ser Pro Cys Gly Leu Gly Thr Tyr Ser His
145 150 155 160

Thr Val Ser Ser Val Asp Lys Cys Glu Pro Val Pro Ser Asn Thr Phe
165 170 175

Asn Tyr Ile Asp Val Glu Ile Asn Leu Tyr Pro Val Asn Asp Thr Ser
180 185 190

Cys Thr Arg Thr Thr Thr Thr Gly Leu Ser Glu Ser Ile Ser Thr Ser
195 200 205

Glu Leu Thr Ile Thr Met Asn His Lys Asp Cys Asp Pro Val Phe Arg
210 215 220

Asn Gly Tyr Phe Ser Val Leu Asn Glu Val Ala Thr Ser Gly Phe Phe

225		230		235		240
Thr Gly Gln Asn Arg Tyr Gln Asn Ile Ser Lys Val Cys Thr Leu Asn						
		245		250		255
Phe Glu Ile Lys Cys Asn Asn Lys Asp Ser Tyr Ser Ser Ser Lys Gln						
		260		265		270
Leu Thr Lys Thr Lys Asn Asp Asp Asp Ser Ile Met Pro His Ser Glu						
		275		280		285
Ser Val Thr Leu Val Gly Asp Cys Leu Ser Ser Val Asp Ile Tyr Ile						
		290		295		300
Leu Tyr Ser Asn Thr Asn Thr Gln Asp Tyr Glu Thr Asp Thr Ile Ser						
305		310		315		320
Tyr His Val Gly Asn Val Leu Asp Val Asp Ser His Met Pro Gly Arg						
		325		330		335
Cys Asp Thr His Lys Leu Ile Thr Asn Ser Asn Ser Gln Tyr Pro Thr						
		340		345		350
His Phe Leu						
		355				

<210> 17
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gctgccggtg ccggctgtac gcggagtggc agaaacacnn acntaccctt ggcgggacgn 180
agagacaggg gagcggctgg tgtntnccca ntgccccag gcacctttnt gcagcgggccg 240
tgccgncgag acagccccac gacgtgtggc ccgtntccac cgcgccacta cagcattct 300
ggaactacct ggagcgtgn ccttactnca acgtcctctg cggggagcgt naggaggagg 360
cacgggtttn ccacgncaac cacaaccgng gnttaccgtn gccgnaccgg tttcttcgng 420
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gagcntgccg tcatcgactt tttggctttc caggacatct ccatcaagag gctgcagcgg 180
ctgctcangc c 191

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<210> 19
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<400> 19
cgcccatggc agaaacaccc acctac

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26

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<210> 20
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<400> 20

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cgcaagcttc tctttcagtg caagtg 26

<210> 21
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<400> 21
 cgcaagcttc tcctcagctc ctgcagtg 28

<210> 22
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 cgcggtatccg ccatcatgag ggcgtggagg ggccag 36

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<400> 23
 cgcggtaccc tctttcagtg caagtg 26

<210> 24
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<400> 24
 cgcggtaccc tcctcagctc ctgcagtg 28

<210> 25
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<400> 25
 agacccaagc ttcttgctcc agcaaggacc atg 33

<210> 26
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 agacgggatc cttagtgggtg gtgggtgggtg tgcacagga ggaagcgctc 50

<210> 27
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<400> 27

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